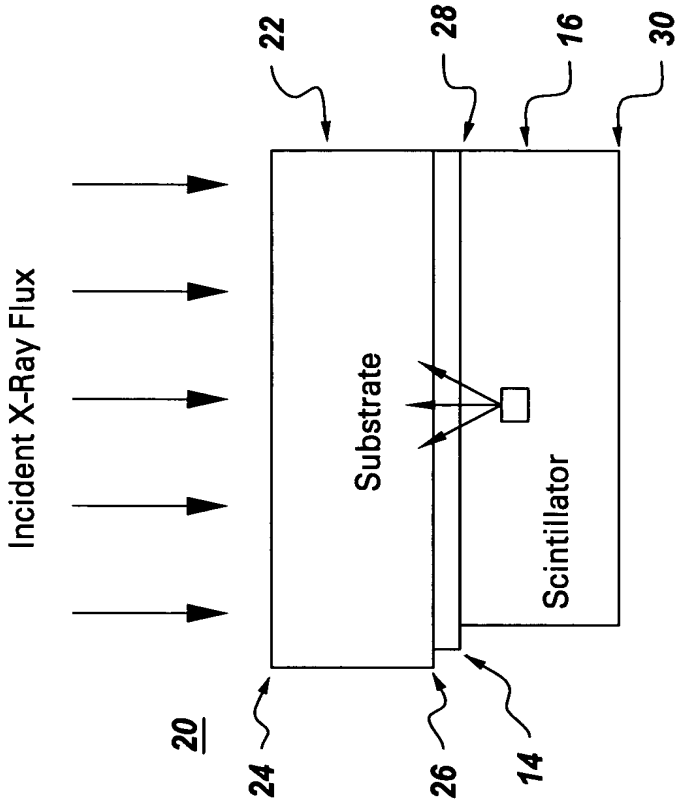

Fig. 2

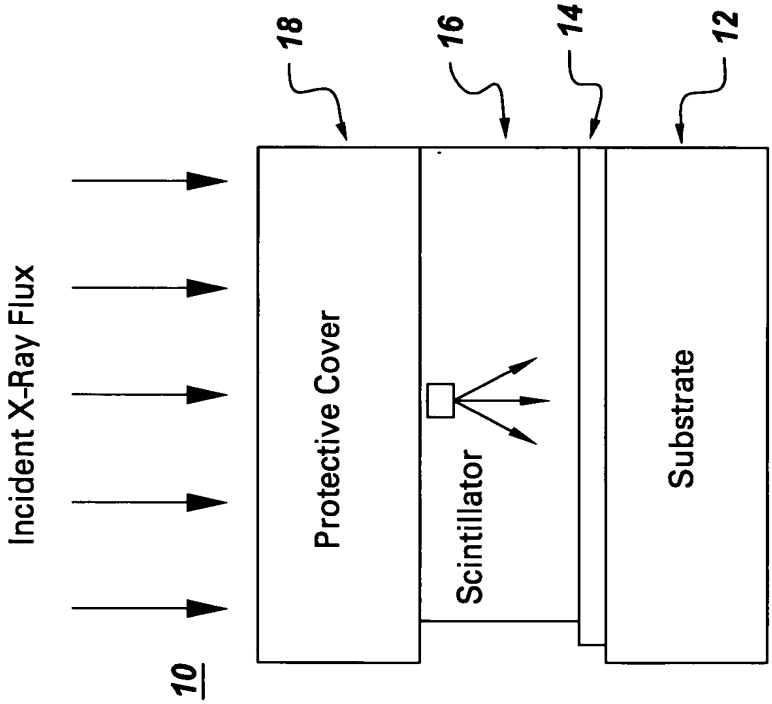

Fig. 1 Prior Art

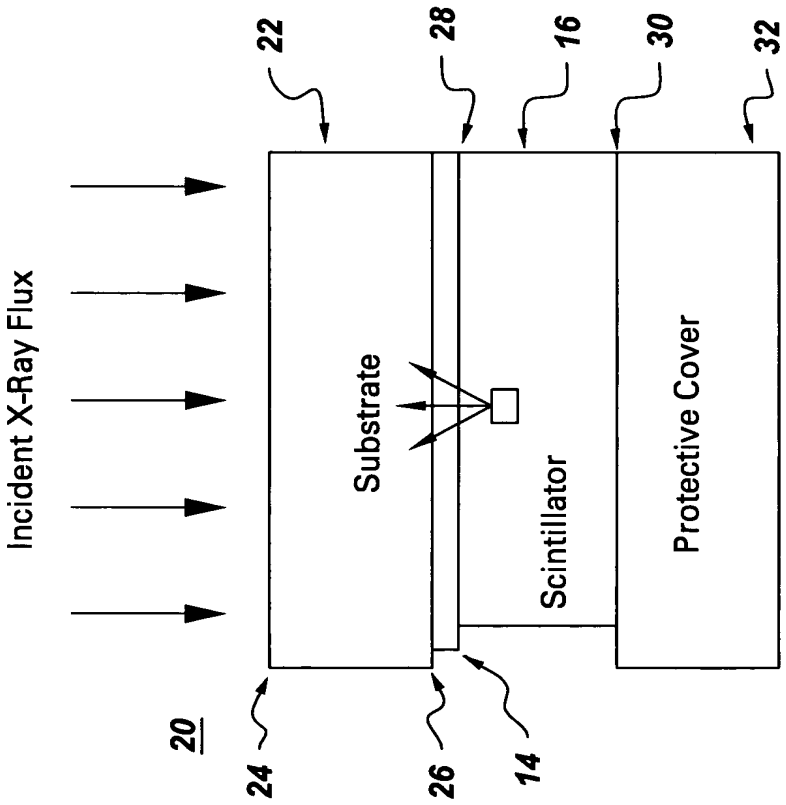
Incident X-Ray Flux
Substrate
Scintillator
Protective Cover
20
22
28
16
30
32
24
26
14

Fig. 3

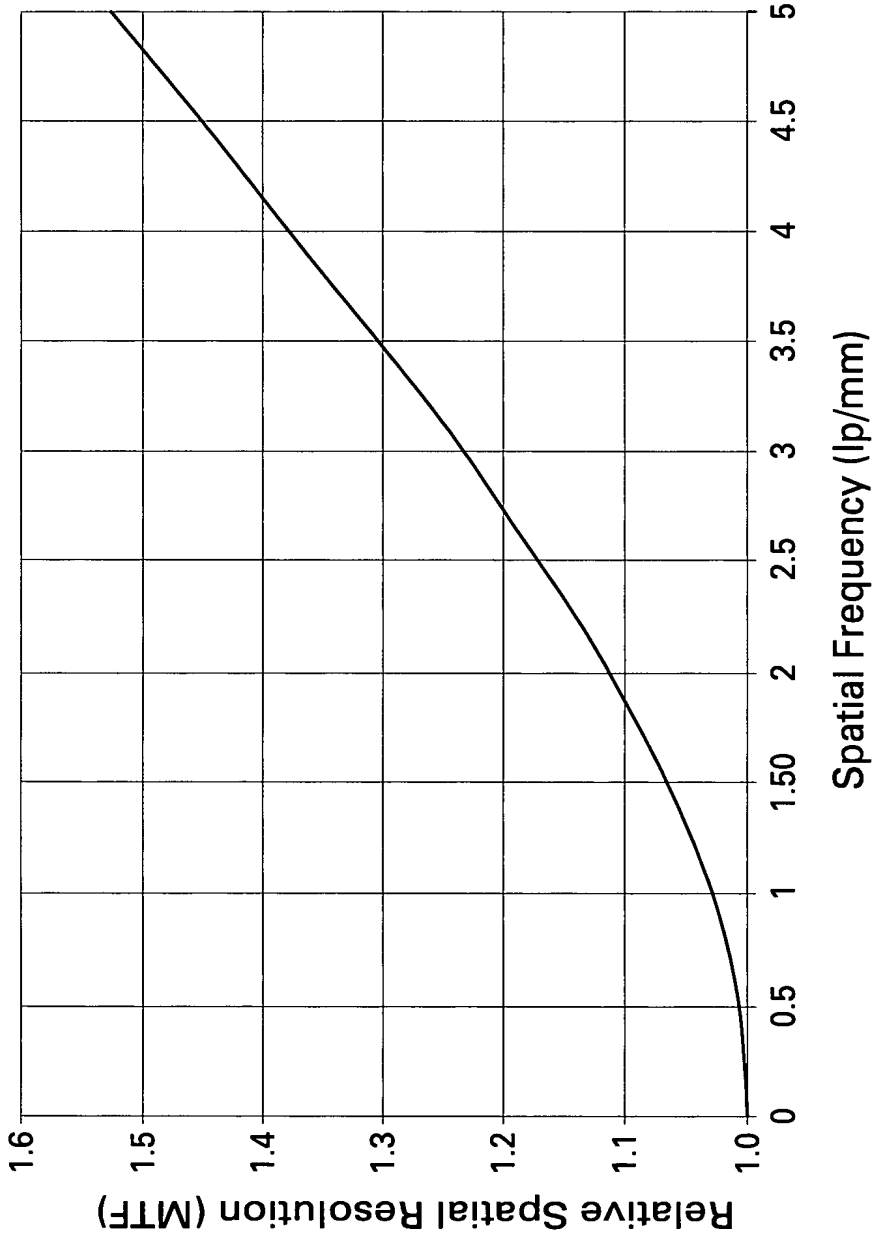
Relative Spatial Resolution (MTF)
1.6
1.5
1.4
1.3
1.2
1.1
1.0
Spatial Frequency (lp/mm)
0
0.5
1
1.50
2
2.5
3
3.5
4
4.5
5

Fig. 4

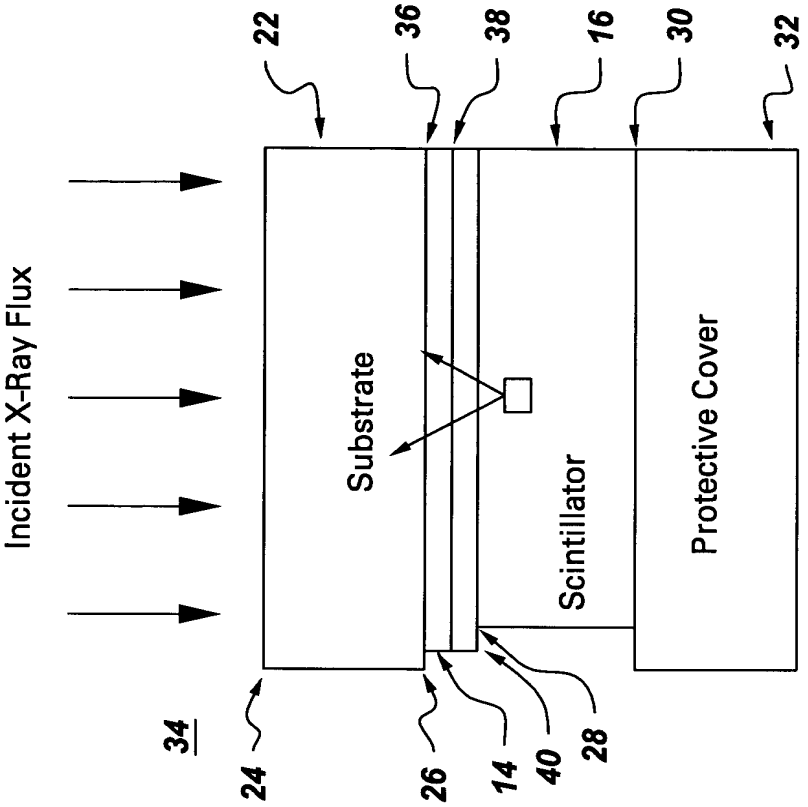
Incident X-Ray Flux
Substrate
Scintillator
Protective Cover
22
36
38
16
30
32
34
24
26
14
40
28

Fig. 6

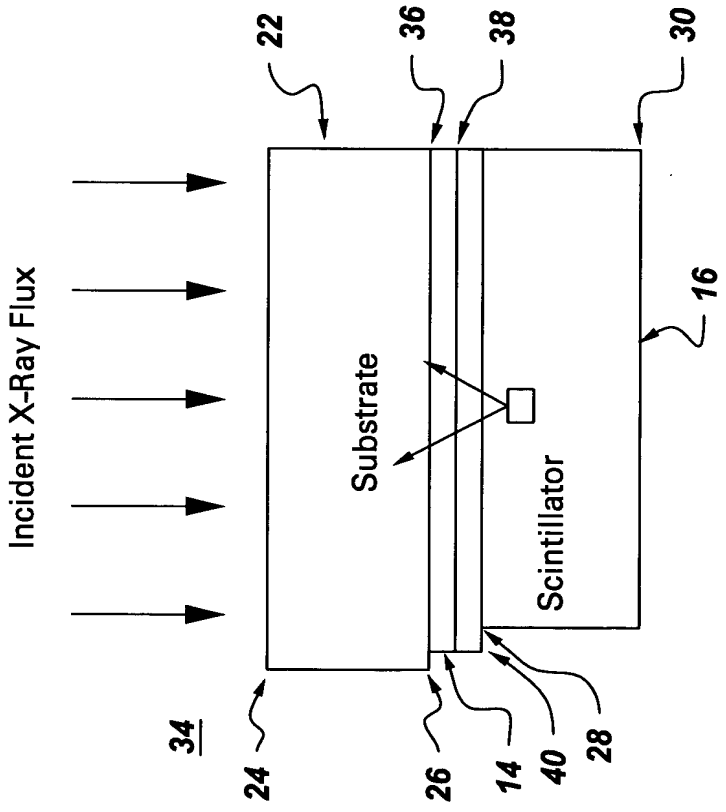
Incident X-Ray Flux
Substrate
Scintillator
22
36
38
30
16
34
24
26
14
40
28

Fig. 5

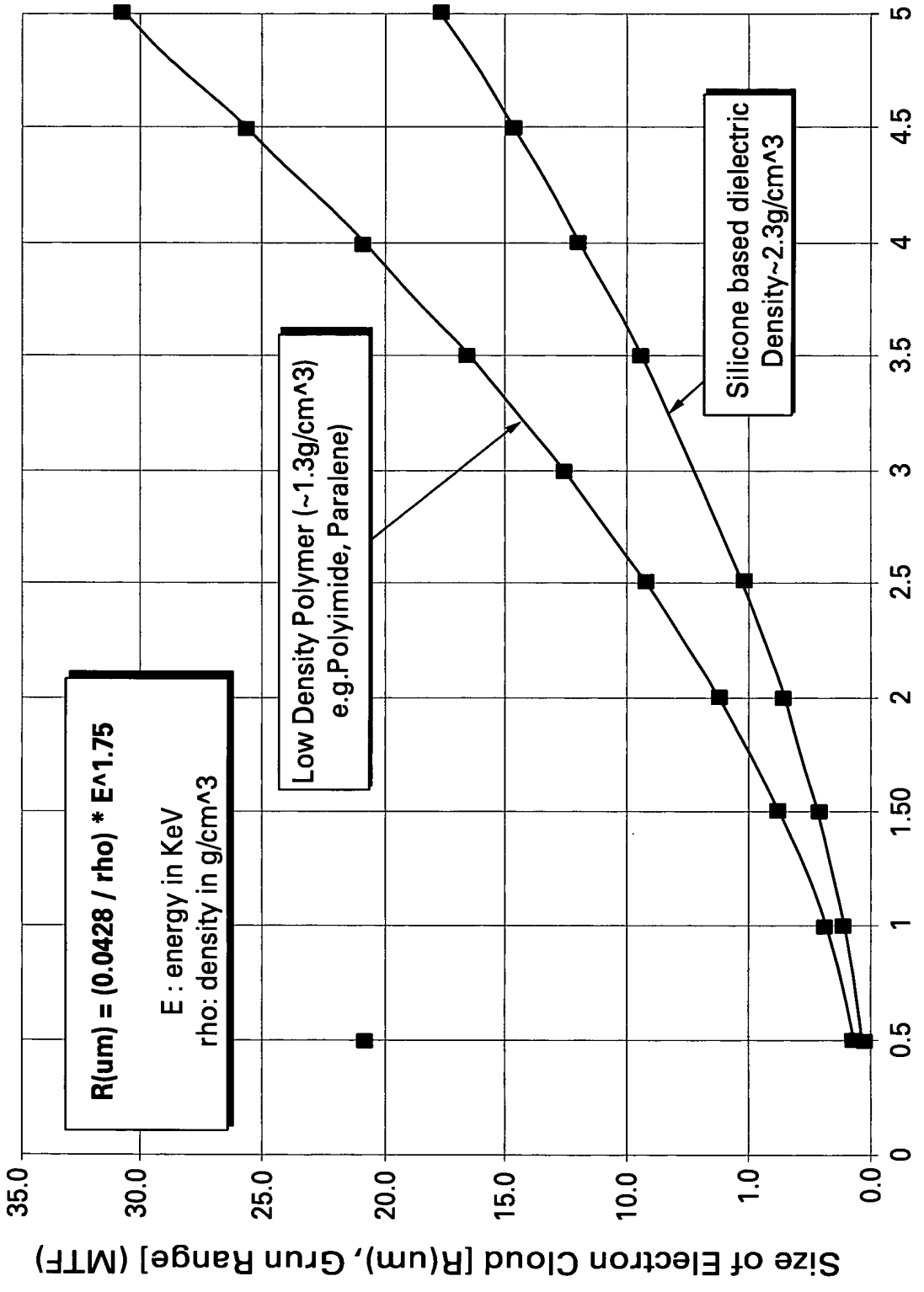
Size of Electron Cloud [R(um), Grun Range] (MTF)
35.0
30.0
25.0
20.0
15.0
10.0
1.0
0.0
0
0.5
1
1.50
2
2.5
3
3.5
4
4.5
5
Electron Energy (KeV)
R(um) = (0.0428 / rho) * E^1.75
E : energy in KeV
rho: density in g/cm^3
Low Density Polymer (~1.3g/cm^3)
e.g.Polyimide, Paralene)
Silicone based dielectric
Density~2.3g/cm^3

Fig. 7